IN THE CLAIMS:

1. (currently amended) A method of forming a microlens structure comprising:

providing a transparent material;

forming a hard mask overlying the transparent material;

patterning an opening in the hard mask; and

forming a lens shape by etching the hard mask and the transparent material using an isotropic wet etch that etches the hard mask faster than the transparent material, whereby the hard mask is etched laterally to expose a larger area of the underlying transparent layer as the etch proceeds.

2. (original) The method of claim 1, further comprising filling the lens shape with a lens material.

3. (original) The method of claim 1, wherein the transparent material is silicon oxide, or glass.

4. (original) The method of claim 1, wherein the transparent material is an optical resin.

5. (original) The method of claim 3, wherein the isotropic wet etch is a buffered HF etch.

6. (original) The method of claim 2, wherein the lens material has a higher refractive index than the transparent material.

7. (original) The method of claim 3, wherein the lens material comprises HfO_2, TiO_2, ZrO_2, ZnO_2, or optical resin.

8. (original) The method of claim 2, further comprising forming an AR coating overlying the lens material.

9. (original) The method of claim 8, wherein the AR coating is a single layer AR coating.

10. (original) The method of claim 9, wherein the single layer AR coating comprises silicon oxide, glass, or optical resin.

11. (original) The method of claim 2, further comprising planarizing the lens material.

12. (original) The method of claim 11, wherein planarizing the lens material comprises chemical mechanical polishing.

13. (original) The method of claim 11, wherein planarizing comprises reflowing the lens material.

14. canceled

15. (currently amended) The method of claim [[14]] 1, wherein the hard mask is TEOS oxide and the transparent material is thermal oxide.

16. (original) The method of claim 12, wherein the hard mask is a doped silicon oxide and the transparent material is undoped silicon oxide.

17. (original) The method of claim 1, wherein the opening in the hard mask has non-vertical walls.

18. (original) The method of claim 1, further comprising a second transparent material overlying the transparent material.

19. (original) The method of claim 18, wherein the second transparent material has a faster etch rate than the transparent material.

20. (original) The method of claim 1, wherein the transparent layer is provided overlying a substrate having a photodetector formed thereon.

21. (new) A method for forming a microlens structure, the method comprising:

providing a transparent material;

forming a hard mask overlying the transparent material;

patterning an opening in the hard mask;

applying an isotropic wet etch;

etching the hard mask faster than the transparent material;

laterally etching the hard mask to expose an underlying area of the transparent material; and,

forming a lens shape in the transparent material.